English Translation of Amendments under PCT Article 34 filed on February 15, 2005

The present invention was arrived at in view of the above problems, and an object of the present invention is to provide a wireless terminal, a base device, a wireless system, a wireless terminal control method, a wireless terminal control program, and a computer-readable recording medium storing the control program, which suppress deterioration of a response for carrying out, on a display section, display of first video and second video superposed on the first video.

DISCLOSURE OF INVENTION

To attain the foregoing object, a wireless terminal of the present invention, which transmits/receives data to/from a base device, includes receiving means for receiving, from the base device, first video data and EPG data related to the data; first video generating means for generating a first video image based on the first video data; second video generating means for generating a second video image based on the EPG data; video superposing means for superposing the second video image on the first video image and displaying the superposed video image on a display section; and rewritable nonvolatile memory for storing the EPG data received by the receiving means, the second video generating means generating the second video image

based on the EPG data stored in the nonvolatile memory.

Further, to attain the foregoing object, a wireless terminal control method for transmitting/receiving data to/from a base device may include the steps of: receiving, from the base device, first video data and EPG data related to the video data; generating a first video image based on the first video data; generating a second video image based on the EPG data; superposing the second video image on the first video image and displaying the superposed video image on a display section; and writing the EPG data transmitted from the base device into rewritable nonvolatile memory. In the step for generating the second video image, the second video image is generated based on the EPG data stored in the nonvolatile memory.

According to the above arrangement, the first video data is received from the base device and the first video image is generated based on the first video data, while the EPG data is received from the base device and the second video image is generated based on EPG data. Further, the second video image is superposed on the first video image, and the superposed video image is displayed on the display section. That is, according to the arrangement, the step for generating the second video image and the step for superposing the second video image on the first video

image are carried out in the wireless terminal. Thus, compared to a conventional arrangement in which these steps are carried out on the base device side, a speed for responding to a user' s input for instructing a superposed video image to be displayed, in which the second video image is superposed on the first video image, is improved because there is no need of encoding and decoding data of the superposed video image.

Note that, the first video image includes a television broadcast video image received by the base device, and a video image reproduced by a videocassette recorder or a DVD (digital versatile disk) recorder. The television broadcast video image includes not only a television video image for ground wave analog broadcasts and ground wave digital broadcasts, but also a broadcasting satellite video image, a data broadcast video image, a video image outputted from a set top box receiving CATV broadcasts (CATV broadcast video). Further, the second video image is an EPG (electronic program guide) video image.

To attain the foregoing object, the base device of the present invention includes transmitting means for transmitting the first video data and the EPG data to the wireless terminal.

According to the above arrangement, the step for generating the second video image and the step for

superposing the second video image on the first video image are carried out in the wireless terminal. Therefore, compared to an arrangement in which these steps are carried out on the base device side, a speed for responding to a user' s input for instructing a superposed video image to be displayed, in which the second video image is superposed on the first video image, is improved because there is no need of encoding and decoding data of the superposed video image.

To attain the foregoing object, a wireless system of the present invention includes the wireless terminal, and the base device having the transmitting means for transmitting the first video data and the EPG data to the wireless terminal.

According to the above arrangement, the step for generating the second video image and the step for superposing the second video image on the first video image are carried out in the wireless terminal. Therefore, compared to an arrangement in which these steps are carried out on the base device side, a speed for responding to a user's input for instructing a superposed video image to be displayed, in which the second video image is superposed on the first video image, is improved because there is no need of encoding and decoding data of the superposed video image.

Note that, the wireless terminal may be realized by a computer. In this case, a computer-readable recording medium storing a wireless terminal control program, which realizes the wireless terminal in the computer by causing the computer to function as the sections, is within the scope of the present invention.

For a fuller understanding of the nature and advantages of the invention, reference should be made to the ensuing detailed description taken in conjunction with the accompanying drawings.

BRIEF DESCRIPTION OF DRAWINGS

Fig.1 is a functional block diagram illustrating an exemplary structure of a wireless AV system according to one embodiment of the present invention.

Fig. 2 is a functional block diagram illustrating a wireless center constituting the wireless AV system shown in Fig. 1.

Fig. 3 is a functional block diagram illustrating a TV main unit constituting the wireless AV system shown in Fig. 1.

Fig. 4 is a view schematically illustrating an exemplary structure of data transmitted/received between the wireless center and the TV main unit, which constitute

CLAIMS:

1. (Amended) A wireless terminal for transmitting/receiving data to/from a base device, the wireless terminal comprising:

receiving means for receiving, from the base device, first video data and EPG data related to the data;

first video generating means for generating a first video image based on the first video data;

second video generating means for generating a second video image based on the EPG data;

video superposing means for superposing the second video image on the first video image and displaying the superposed video image on a display section; and

rewritable nonvolatile memory for storing the EPG data received by the receiving means,

the second video generating means generating the second video image based on the EPG data stored in the nonvolatile memory.

2. (Cancelled)

3. (Amended) The wireless terminal of claim 1, wherein the second video generating means generates the second video image by adding the EPG data to template data stored by the wireless terminal.

4. (Amended) The wireless terminal of claim 1 or 3,

wherein the first video image is a television broadcast video image.

5. (Amended) A base device comprising transmitting means for transmitting the first video data and the EPG data to the wireless terminal of claim 1 or 3.

6. (Amended) A wireless system, comprising:

the wireless terminal of claim 1 or 3; and

a base device having transmitting means for transmitting the first video data and the EPG data to the wireless terminal of claim 1 or 3.

7. (Amended) A wireless terminal control method for transmitting/receiving data to/from a base device,

the method comprising the steps of:

receiving, from the base device, first video data and EPG data related to the video data;

generating a first video image based on the first

video data;

generating a second video image based on the EPG data;

superposing the second video image on the first video image and displaying the superposed video image on a display section; and

writing the EPG data transmitted from the base device into rewritable nonvolatile memory,

wherein, in the step for generating the second video image, the second video image is generated based on the EPG data stored in the nonvolatile memory.

8. (Amended) A wireless terminal control program, which operates the wireless terminal of claim 1 or 3,

the control program causing a computer to function as each of the means.

9. A computer-readable recording medium storing the wireless terminal control program of claim 8.